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**MAILED**

**OCT 12 2010**

**OFFICE OF PETITIONS**

In re Application of	:	
Eric R. Schott	:	
Application No. 10/761,884	:	ON PETITION
Filed: January 20, 2004	:	
Attorney Docket No. EQLC-P01-005	:	

This is a decision on the petition under the unintentional provisions of 37 CFR 1.137(b), filed September 17, 2010, to revive the above-identified application.

The petition is **DISMISSED**.

Any request for reconsideration of this decision must be submitted within **TWO (2) MONTHS** from the mail date of this decision. Extensions of time under 37 CFR 1.136(a) are permitted. The reconsideration request should include a cover letter entitled "Renewed Petition under 37 CFR 1.137(b)." This is **not** a final agency action within the meaning of 5 U.S.C. § 704.

The application became abandoned for failure to timely reply within the meaning of 37 CFR 1.113 to the final Office action, mailed September 30, 2009, which set a shortened statutory period for reply of three (3) months. No extensions of time under the provisions of 37 CFR 1.136(a) was obtained. Accordingly, the application became abandoned on December 31, 2009. The Notice of Abandonment was mailed May 11, 2010.

A grantable petition under 37 CFR 1.137(b) must be accompanied by: (1) the required reply, unless previously filed; (2) the petition fee as set forth in 37 CFR 1.17(m); (3) a statement that the entire delay in filing the required reply from the due date for the reply until the filing of a grantable petition pursuant to 37 CFR 1.137(b) was unintentional; and (4) any terminal disclaimer (and fee as set forth in 37 CFR 1.20(d)) required by 37 CFR 1.137(d). Where there is a question as to whether either the abandonment or the delay in filing a petition under 37 CFR 1.137 was unintentional, the Director may require additional information. See MPEP 711.03(c)(II)(C) and (D). The instant petition lacks item(s) (1).

The proposed reply required for consideration of a petition to revive must be a Notice of Appeal (and appeal fee required by 37 CFR 41.20(b)(2)), an amendment that prima facie places the application in condition for allowance, a Request for Continued Examination and submission (37 CFR 1.114), or the filing of a continuing application under 37 CFR 1.53(b). See MPEP 711.03(c)(III)(A)(2). The amendment filed herewith petition *does not* prima facie place the application in condition for allowance.

It is not apparent whether the person signing the statement of unintentional delay was in a position to have firsthand or direct knowledge of the facts and circumstances of the delay at issue. Nevertheless, such statement is being treated as having been made as the result of a reasonable inquiry into the facts and circumstances of such delay. See 37 CFR 10.18(b) and Changes to Patent Practice and Procedure; Final Rule Notice, 62 Fed. Reg. 53131, 53178 (October 10, 1997), 1203 Off. Gaz. Pat. Office 63, 103 (October 21, 1997). In the event that such an inquiry has not been made, petitioner must make such an inquiry. If such inquiry results in the discovery that it is not correct that the entire delay in filing the required reply from the due date for the reply until the filing of a grantable petition pursuant to 37 CFR 1.137(b) was unintentional, petitioner must notify the Office.

There is no indication that the person signing the petition was ever given a power of attorney to prosecute the application. If the person signing the petition desires to receive future correspondence regarding this application, the appropriate power of attorney document must be submitted. While a courtesy copy of this decision is being mailed to the person signing the petition, all future correspondence will be directed to the address currently of record until appropriate instructions are received.

Further correspondence with respect to this matter should be addressed as follows:

By Mail:                      Mail Stop PETITION  
                                    Commissioner for Patents  
                                    P. O. Box 1450  
                                    Alexandria, VA 22313-1450

By hand:                     U. S. Patent and Trademark Office  
                                    Customer Service Window, Mail Stop Petitions  
                                    Randolph Building  
                                    401 Dulany Street  
                                    Alexandria, VA 22314

The centralized facsimile number is (571) 273-8300.

Telephone inquiries concerning this decision should be directed to the undersigned at (571) 272-2991.

/Terri Johnson/  
Terri Johnson  
Petitions Examiner  
Office of Petitions

cc: **HAMILTON, BROOK, SMITH & REYNOLDS, P.C.**  
**530 VIRGINIA ROAD**  
**P.O. BOX 9133**  
**CONCORD, MA 01742-9133**

Enclosed: Examiner's Advisory Action PTOL-303

**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

10/761,884

Applicant(s)

SCHOTT, ERIC R.

Examiner

DUC T. DOAN

Art Unit

2185

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 17 September 2010 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☒ Applicant's reply has overcome the following rejection(s): 27 and 29.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: 27 and 29.  
Claim(s) rejected: 1-2, 8-12, 18-20, 22-26, 28 and 30-31.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attached.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_  
13. ☐ Other: \_\_\_\_\_.

/Duc T Doan/  
Examiner, Art Unit 2185

Applicant argues at pages 8-9,

" ... In Dimitri, a storage medium is formatted into a plurality of "zones". Each zone comprises one or more circumferential tracks, with each track comprising a plurality of addressable sectors. The innermost zones have fewer sectors than the outermost zones. When a request is received to write a file to the storage medium, a "utilization factor" is determined for the file and a zone for the file is selected. The determined file utilization factor is an expected rate at which the file will need to be accessed by the application, not the measured performance of the medium itself. The file is then written to the selected zone. (See Dimitri, the Abstract). Thus, files with relatively low access rates are assigned to low performance areas, and files with relatively high access rates are assigned to relatively high performance areas on the storage medium. Applicants must therefore disagree with the Examiner's characterization of Fig. 4 of Dimitri. That figure is not "logic for determining a level of performance for storage locations." It is merely a table that describes the as-manufactured physical structure for the storage regions on the disk, including a number of sectors per revolution (revolutions per minute which are indicated as being the same for each zone) and a read rate in megabytes per second for the zone. It does not suggest performing a process as claimed for determining a measured level of performance for a plurality of storage locations. Nor does it suggest the claimed determining a level of performance by experimental read and write operations across a logical block main space, and then using those measurements to

Art Unit: 2185

aggregate various locations by a logical block Furthermore, the partitioning suggested by Fig. 4 in Dimitri is merely a predetermined partition based on the physical layout of storage areas on the disk, and not determined by measured levels of performance. For these reasons alone, the rejection under 35 U.S.C. 103(a) is prima facie deficient and should be withdrawn. Furthermore, at Column 8, lines 31-43, Dimitri is merely suggesting that a RAID controller would then write all data stripes to the same zone on different disks. This is because Dimitri is trying to ensure that the data transfer rate for all of the disks is the same, thereby avoiding a situation where the RAID controller performance is limited to the performance of the inner most zone of all the disks to which data is striped. But, this does not amount to Applicant's claimed mapping process to map partitioned regions of the storage locations and aggregating logical block names having an identical level of performance to a selected section of the logical block named space. **Dimitri mentions nothing whatsoever about logical block name spaces, and cannot therefore also suggest anything about logical block name spaces.**

A1) Applicant appears to argue that Dimitri does not suggest the claim's "a performance process configured to determine a measured level of performance for a plurality of storage locations".

In response, Examiner disagrees. Dimitri's col. 5 lines 42-60, Table 4 discloses performance values such as megabytes per second under head for zones of disk

Art Unit: 2185

storage, i.e locations in zones correspond to claim's plurality of storage locations. These different values of megabytes per second, i.e data transfer rate, of different zones teach the claim's measured level(s) of performance.

With regard to the argument "the partition suggested that Dimitri is merely a predetermined partition based on the physical layout of storage on the disk and not determined by measured levels of performance, Examiner disagrees.

Dimitri clearly discloses physical zones each has a different measured performance as discussed in item A1 above. Dimitri further teach to partition data to zones with different performance levels, the most frequently access data should be partitioned to zones with fast data transfer rate. For example operating system data, i.e claim's partition is stored in zones at outer edges with fast data transfer, and thereby the operating system data can quickly be accessed (Dimitri's col. 6 line 5-45 " ... Smaller files and files utilized less frequently can be written to a relatively inner zone because slower data transfer rates for such files will not have as adverse an effect on performance as a slow data transfer rate for a larger or more frequently accessed file. For instance, database files or files used by the operating system, such as the file allocation table (FAT), should be written to the outermost zones as they are frequently accessed").).

With regard to the teaching of logical block name space,

Dimitri further teaches the stored data / file in each zone having LBAs logical block addresses which constitute a logical block name space (see col. 1 line 10-40).

Art Unit: 2185

A2) With regard to the argument, "Nor does it suggest the claimed determining a level of performance by experimental read and write operations across a logical block main space." .

In response, this argument is persuasive. However, the argument directs to limitation of dependent claims 27 and 29. Therefore,

Claims 27 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

A3) Applicant further argues, at pages 9-10

" .. Jacobson does disclose a RAID controller. However, item 26 in Jacobson is just a first set of disks that stores original data; duplicative redundant data is then stored on a paired second set of disks 28. See Column 3, lines 40-42 of Jacobson. Figure 1 of Jacobson just shows a group of disks arranged in a mirror group 18 of multiple disks 20 and a parity group 22 of multiple disks 24. This type of redundancy is considered to be a RAID level 1 or "disk mirroring" type implementation. Thus, the Examiner's reading of Jacobson appears to be less than accurate since there is no suggestion in Jacobson that different RAID levels be serviced by the same physical disk. Finally, Kim does describe a way to manage dynamic resizing of a logical volume. Kim also describes various RAID levels and that disk striping can be provided such that a single record can span multiple disks. Kim also mentions that better performance requires establishing



Art Unit: 2185

a stripe that is wide enough to hold a typical maximum sized record. (See Column 1, lines 55-65 in Kim). In Figure 2, Kim does show a logical volume that may have disks 1, 2, 3, and 4 divided into four partitions and disks 5, 6, 7, and 8 each having one partition. Column 7, lines 7-15 of Kim also does suggest that after a disk partition is created using an operating system tool and a logical RAID volume can be constructed. However, there is no suggestion Kim of pairing this RAID assignment to measured performance levels. In further aspects of Kim (at Column 8, lines 32-44), a logical volume map 72 includes information for identifying a logical volume, its extent size, a total number of extents in a corresponding volume, a stripe size, a RAID level, and a number of disk partitions. These are used to then construct the corresponding volume. However, this also does not amount to a suggestion of aggregating logical block names with the same measured performance criteria. Therefore, even if one incorporated the storage controller of Jacobson and Kim into Dimitri's system, one would not arrive at the claimed invention. One would not end up with a process that (a) measures performance of storage locations, (b) maps regions of like measured performance together as partitioned regions, and (c) aggregates their logical block names to provide different RAID level configurations on the same storage device.

In response, with regard to the arguments " .. Jacobson does not teach different RAID levels be serviced by the same physical disk.. ", and Kim does not teach "pairing

Art Unit: 2185

RAID assignment to measured performance levels. The arguments are not persuasive, since the assignment of regions of disk storage space to each RAID level respectively is already taught by Jacobson, see Fig 1. And Kim is relied for the teaching of RAID levels in the same storage device as stated in the rejection of claim 1. Thus by combining RAIDs in the same storage device in the Dmitry's system modified by Jacobsen, it results in the process and configuration as claimed.

Applicant is reminded pursuant to MPEP § 2145 (IV.), "[o]ne cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981)."

A4) Applicant further argues,

Furthermore, at Column 8, lines 31-43, Dimitri is merely suggesting that a RAID controller would then write all data stripes to the same zone on different disks. This is because Dimitri is trying to ensure that the data transfer rate for all of the disks is the same, thereby avoiding a situation where the RAID controller performance is limited to the performance of the inner most zone of all the disks to which data is striped. But, this does not amount to Applicant's claimed mapping process to map partitioned regions of the storage locations and aggregating logical block names having an identical level of performance to a selected section of the logical block named space. Dimitri mentions nothing whatsoever about logical block name spaces, and cannot therefore also suggest anything about aggregating logical block name spaces. Jacobson does disclose

a RAID controller. However, item 26 in Jacobson is just a first set of disks that stores original data; duplicative redundant data is then stored on a paired second set of disks 28. See Column 3, lines 40-42 of Jacobson. Figure 1 of Jacobson just shows a group of disks arranged in a mirror group 18 of multiple disks 20 and a parity group 22 of multiple disks 24. This type of redundancy is considered to be a RAID level 1 or "disk mirroring" type implementation. Thus, the Examiner's reading of Jacobson appears to be less than accurate since there is no suggestion in Jacobson that different RAID levels be serviced by the same physical disk. Finally, Kim does describe a way to manage dynamic resizing of a logical volume. Kim also describes various RAID levels and that disk striping can be provided such that a single requires establishing a stripe that is wide enough to hold a typical maximum sized record. (See Column 1, lines 55-65 in Kim). In Figure 2, Kim does show a logical volume that may have disks 1, 2, 3, and 4 divided into four partitions and disks 5, 6, 7, and 8 each having one partition. Column 7, lines 7-15 of Kim also does suggest that after a disk partition is created using an operating system tool and a logical RAID volume can be constructed. However, there is no suggestion Kim of pairing this RAID assignment to measured performance levels. In further aspects of Kim (at Column 8, lines 32-44), a logical volume map 72 includes information for identifying a logical volume, its extent size, a total number of extents in a corresponding volume, a stripe size, a RAID level, and a number of disk partitions. These are used to then construct the corresponding volume. However,

Art Unit: 2185

this also does not amount to a suggestion of aggregating logical block names with the same measured performance criteria. Therefore, even if one incorporated the storage controller of Jacobson and Kim into Dimitri's system, one would not arrive at the claimed invention. One would not end up with a process that (a) measures performance of storage locations, (b) maps regions of like measured performance together as partitioned regions, and (c) aggregates their logical block names to provide different RAID level configurations on the same storage device.

In response, Kim is relied mainly for the teaching of the teaching of RAID levels in the same storage device as stated in the rejection of claim 1. Thus by combining RAIDs in the same storage device in the Dimitri's system modified by Jacobsen, it results in the process and configuration as claimed. see the discussion in item A3 above.

Applicant is reminded pursuant to MPEP § 2145 (IV.), "[o]ne cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981)."